

1 BEFORE THE
2 ILLINOIS COMMERCE COMMISSION
3
4 PLUG-IN ELECTRIC VEHICLE INITIATIVE
5 POLICY MEETING
6
7
8 Chicago, Illinois
9 March 9, 2011
10 Met, pursuant to notice, at 1:30 p.m.
11
12 BEFORE:
13 MR. DOUGLAS P. SCOTT, Acting Chairman
14 MS. LULA M. FORD, Commissioner
15 MS. ERIN M. O'CONNELL-DIAZ, Commissioner
16 MR. SHERMAN J. ELLIOTT, Commissioner
17 MR. JOHN T. COLGAN, Acting Commissioner
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21 SULLIVAN REPORTING COMPANY, by
22 Auhdikiam Carney, CSR
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1 ACTING CHAIRMAN SCOTT: Good afternoon
2 everyone. Thank you very much for coming today.
3 Pursuant to the provisions of the Illinois Open
4 Meetings Act, I now convene the Plug-In Electric
5 Vehicle Initiative Policy Committee Meeting of the
6 Illinois Commerce Commission. With me in Chicago are
7 Commissioners Ford, O'Connell-Diaz, Elliott, Acting
8 Commissioner Colgan, and myself Acting Chairman
9 Scott.

10 We have a quorum.

11 Today we'll be discussing the impact
12 of deploying electric vehicles in Illinois. Before
13 moving into the policy meeting, this is the time we
14 allow the members of the public to address the
15 Commission. Pursuant to Section 1700.10 of the
16 Illinois Administrative Code, members of the public
17 wishing to address the Commission must notify the
18 Chief Clerk's Office at least 24 hours prior to the
19 bench session. According to the Chief Clerk's
20 Office, we have not received any requests to speak.

21 As a preliminary matter, I note that
22 the opinions expressed by the commissioners in the

1 course of this meeting are those of the respective
2 commissioners and should not be interpreted as a
3 reflection of any Commission policy or the view of
4 the Commission as a whole, nor should they be viewed
5 as indicative of any action the Commission might take
6 in impending future proceedings. I will now turn the
7 floor over to Commission O'Connell-Diaz for the
8 Plug-in Electric Vehicle Initiative Policy Meeting.

9 COMMISSIONER O'CONNELL-DIAZ: Thank you,
10 Mr. Chairman. Just so everybody knows, Chairman
11 Scott will be acting as my -- riding sidesaddle with
12 me in this. As we move forward, he will be the
13 co-chair of this initiative and we're really happy to
14 have him on board and I'm really glad to have him
15 working with me as we move forward with this
16 important initiative.

17 First of all, welcome everybody to the
18 first meeting, this is our kick-off meeting. We have
19 been working on this since the fall and as everybody
20 knows the objective of the this initiative is to
21 establish a statewide forum to discuss proactively
22 how the Illinois Commerce Commission can ensure that

1 our state will be prepared for the inevitable
2 deployment of this green mode of transportation.
3 With gas prices hovering in the \$4 range and no
4 relief in sight, the time is here, the time is now
5 and Americans' attention are focussed like never
6 before in a quest for options that will keep green in
7 their pocket, assist in our national security and
8 improve our planet's health.

9 I thought it was important for you to
10 see based on the slide that's over on the projector
11 of what we've been doing since we started this
12 initiative in September. We had sent out -- it
13 wasn't a white paper, but areas of questions that we
14 thought were important that our public utility in our
15 state gave us assessments on. They filed comments
16 and then we had or stakeholder process begin with
17 comments coming in from stakeholders. So far we have
18 received nine stakeholder comments to the utility
19 assessment representing various interests throughout
20 our state, municipalities, areas, consumer advocates,
21 and agencies. We welcome everyone to this
22 initiative. If you have not participated so far, we

1 look forward to having you join the party and bring
2 your brains and your brawn and we would like you to
3 be apart of this ongoing process. For anyone that
4 doesn't know, the assessments and the comments can be
5 found entirely on the Commission's Web site. There
6 is a special section there with regard to this.

7 As you may know, the electric vehicle
8 is a not a new phenomenon, but it's been with us for
9 over a hundred years. I'd like to share with you an
10 article from the New York Times instilling the
11 virtues of the electric vehicle. Electric vehicles
12 attract attention. Pleasure cars not forgotten at
13 Garden Motor Truck show, record attendance. Even
14 though most of vehicles shown at Madison Square
15 Garden this week are those of the strictly business
16 variety. The second part of the National Automobile
17 Show has been attended by a great many visitors of
18 the fair sex. Some of the women have gone to the
19 Garden with those whose interest have been
20 practically confined to the gasoline commercial cars,
21 but the majority of the women have gone to examine
22 the four makes of electric passenger vehicles that

1 are displayed in the building this week. The
2 designers of the electrical passenger carrying
3 vehicles have made great advances in the past few
4 years and these machines have retained all their
5 early popularity and are steadily growing in favor
6 with both men and women. They are very handy for use
7 in the city and numbers of best know and most common
8 makers of gasoline cars in this country use electric
9 cars for driving between their homes and their
10 offices.

11 The enthusiastic interest recently
12 shown by the electric power companies all over the
13 country and furthering the cause of the electric
14 passenger vehicles insures a still greater use of
15 these machines. In the past it was sometimes
16 difficult to make arrangements to have electrics
17 charged unless the vehicles were stored in the garage
18 where owners of electrics were catered to, but this
19 state of affairs could change. Now it is possible
20 for an owner of an electric to install his own
21 charging plant in his stable and the electric power
22 companies are anxious to connect their feed wires to

1 these individual charging plants.

2 So as you can see, the electric
3 vehicle is not new. It is something that we have
4 lived with for over a hundred years in our country
5 and we're here to bring that next chapter to
6 fruition. As Secretary Chief told us when we
7 participated in the NARUC DOE forum two weeks ago
8 that our goal in transformation of our electric grid
9 for the 21st Century should be to insure that Thomas
10 Edison couldn't recognize it. The same could be said
11 for the goals of electric vehicles. Electric
12 vehicles, natural gas vehicles are just one of the
13 options on the menu of ways that we can change our
14 energy future in America. And just to show you where
15 we have gotten to since we've seen this photo from a
16 hundred years ago, we have a clip here from our auto
17 show. I'm not sure what kind of commercial we're
18 going to have on here, so bear with us.

19 So as we can see the electric vehicle
20 is not new. We now have a new charge from our
21 president that we would like to see 1 million
22 electric vehicles on U.S. roads by 2015. Many of you

1 may be aware that the auto manufacturers did not have
2 Illinois on their list for the initial roll out of
3 PEVs. Part of our job here today is to change their
4 minds and to show them that we are ready, willing,
5 and able to bring these new vehicles into our
6 everyday lives. As we know Illinois is a leader, not
7 only in the states, but internationally for its
8 collaborative efforts in preparing for key industry
9 shifts. Our hard work has gained us a stellar
10 reputation for such endeavors such as the post 2000
11 initiative process to our most recent success
12 Illinois Smart Grid Collaborative and Competitive
13 Supplier Workshops. We are here once again to show
14 that Illinois is in tune with where this country is
15 going and needs to go and we have our finger on the
16 pulse of how to continue to keep Illinois in first
17 place in the regulatory game.

18 In addition, our goal coming out of
19 this summer is to make sure that Illinois has a set
20 of best practices and a statewide policy framework
21 for the integration and an option of PEVs into the
22 electric grid. In the process we will also have to

1 ensure that any standards developed don't compromise
2 the utility's reliability and their ability to
3 maintain safe system operation. More importantly, we
4 have to take the consumers along with us by providing
5 improved customer education and awareness.

6 There are many unknowns in the
7 process, but what we do know is that everyone has to
8 play a role in this transformation of how we do
9 energy in America. Wind energy, solar power,
10 biomass, electric vehicle, natural gas vehicles are
11 all options on the table. Kind of like a menu for us
12 to choose from to help our country make this change.
13 Our theme as expressed by other NARUC president, Tony
14 Clark and every authority that operates in this state
15 whether you be a consumer advocate, a Government
16 official, or industry representative is one of
17 communication and collaboration as we move forward
18 with our nation to deal with these pressing issues.
19 In Illinois this concept is not a foreign one to us.
20 Based on our past successes, we are ready for the
21 challenge. So let's get the checkered flag waving
22 and as they say at Indy, Ladies and gentlemen start

1 your engines.

2 As you know, the Commission has called
3 together the various investor-owned utilities and
4 stakeholders to discuss and respond to a set of
5 predetermined questions and concerns based on the
6 information provided in the respective assessments
7 and comments that I spoke about earlier. Each panel
8 that is here today has been allotted specified time
9 on the agenda for the discussion. Commissioners will
10 feel free to raise any additional questions they have
11 throughout the discussion, and we will begin with our
12 first panel. Our first panel is made up of
13 representatives from Ameren, Blue Star, ComEd,
14 MidAmerica, and of course last but not least our ICC
15 staff. So I would ask our first panel to begin.

16 MR. SCOTT WISEMAN: For those of you listening
17 in in Springfield, this is Scott Wiseman with Ameren
18 Illinois. I wanted to say, Commissioners, I commend
19 you for working with NARUC on this and taking a lot
20 of the information that you received at the NARUC
21 meeting and kind of bringing that into Illinois. As
22 some of you know, when I was executive director I was

1 have a big fan of NARUC and thought there was a lot
2 to learn from that and I still think that's the case,
3 so I want to commend you for taking advantage of
4 that.

5 Ameren Illinois is very proud to be --
6 appreciates the opportunity today to comment on this
7 and we feel like we're ready with our electric
8 distribution system to handle the load that will be
9 coming on based upon all of the assessments of how
10 plug-in vehicles will be coming onto the system. We
11 are -- I think another thing that Commissioners want
12 to know is as a company are we thinking about plug-in
13 electric vehicles, and we are. There's been several
14 corporate initiatives that we have to study how these
15 things are going to roll out and one analogy we like
16 to use is back in the day when air conditioners came
17 on the system. We even talked to some folks -- Eric
18 Kozac is my colleague from Ameren Illinois here today
19 and he can feel free to comment about that, but he
20 actually went and talked to some of the guys out in
21 the field who dealt with the new load that came on
22 back when air conditioners started to come on to the

1 system and I think they were lessons learned at that
2 time. So we're ready to answer questions as you
3 bring them to our attention today. So thank you very
4 much.

5 COMMISSIONER O'CONNELL-DIAZ: Thank you.

6 Jennifer, just state your name for the
7 record. That would be helpful.

8 MS. JENNIFER MOORE: Jennifer Moore of
9 MidAmerican Energy. We'd also like to thank you for
10 the opportunity to come here and talk about the
11 plug-in electric vehicles. I don't really have
12 anything new to add to Mr. Weissman's comments.
13 MidAmerican is doing the same thing in anticipating
14 the roll out, although it may be slower in our
15 service territory than in the Chicago area. It's
16 still one of the factors that we're going to have to
17 be looking at. And similar to -- to echo the
18 comments that we also were looking at the increased
19 loads and treating it similar those of the air
20 conditioners that came on in the '60s and '70s as
21 they were rolling in and as we were looking at it to
22 study when we thought how many vehicles would come

1 into our area. It's going to be slow in our service
2 territory since it's a lot smaller than Illinois and
3 in Iowa, it's going to be a slower rate, but it's
4 good to get out ahead of the curve and thinking about
5 it. Thank you.

6 MR. ROSS HEMPHILL: Good afternoon,
7 Commissioners. My name is Ross Hemphill. I'm the
8 vice president of regulatory strategies and policy
9 for Commonwealth Edison. And to my right is Mike
10 McMahan, who is vice president of smart grid
11 strategies. Between the two of us we're going to be
12 able to answer questions that you have from a
13 technical as well as from policy perspective. We do
14 thank you for inviting us to this.

15 This is very important, I think, in
16 terms of starting the process to talk about something
17 that's going to be very important to this area, to
18 the State of Illinois. We take the potential
19 saturation of PHEVs and EVs very seriously. We
20 understand the benefits that it can bestow on the
21 region and in the State of Illinois. We are
22 approaching this as something that in terms of trying

1 to provide advice to the policy making in Illinois as
2 first setting the objectives in terms of what you
3 want to accomplish with the saturation of EVs and
4 PHEVs. And keeping in mind that from a regulatory
5 perspective what you want to look at, as you well
6 know, is how the regulations can work in conjunction
7 with the development of the technology so that
8 customers can adopt this technology without
9 regulations that would create some types of barriers,
10 but balancing the interest of the customers at the
11 same time.

12 So there are a number of different
13 policies in these questions that you laid out here
14 that we're prepared to address. It's all with the
15 perspective of basically what do we know? What are
16 the challenges that we're going to be facing? What
17 are the different directions that the Commission can
18 take? And in giving those different directions,
19 where will it potentially impede and unnecessarily
20 impede the future adoption of this technology, and
21 where is it necessary in order to provide the maximum
22 protection for customers going forward.

1 MS. MADELON KUCHERA: Good afternoon. My name
2 is Madelon Kuchera, I'm with Blue Star energy
3 services. Certainly we want to thank the Commission
4 for hosting this and the steps that the Commission
5 has taken so far we think are absolutely excellent
6 steps to mainly the utilities in terms of their
7 assessments like they provided a wealth of
8 information that we can start to evaluate this and
9 Blue Star wants to participate as a competitive ARES
10 as well.

11 I mean I think the questions asked
12 were very good beginning questions and we look
13 forward to participating and to answering it. We
14 think the more the Commission lays out what their
15 objectives are, what they really want to accomplish,
16 I think that will guide all of us in trying to answer
17 those questions. But we certainly think that this
18 has been an excellent first step and with that we're
19 very hopeful that Illinois will be a leader in this
20 area. And I think that parties working together can
21 come up with some -- we may not always agree on it,
22 but I think that the more the questions are laid out,

1 we understand what the objectives are trying to be
2 met.

3 We probably will be able to at least
4 resolve a very big number of questions and issues and
5 from Blue Star's perspective, one of our biggest
6 hopes is -- I mean, clearly there is a balancing act
7 the Commission is going to have to do, but we hope
8 that competition is something that's definitely in
9 the forefront. There's parties even probably not in
10 this room even companies we're not even thinking
11 about yet that could bring all kinds of new
12 opportunities to the market that we're not thinking
13 about but the -- if we err on the side of competition
14 but also trying to balance any particular areas where
15 the Commission thinks that regulation is needed, that
16 certainly is something that we would be advocating.
17 But we very much thank the Commission for hosting
18 this and look forward to participating.

19 MS. JENNIFER HINMAN: My name is Jennifer
20 Hinman from the Commission Staff. I would like to
21 thank the Commission for starting this initiative,
22 it's a very timely topic. Also I would like to note

1 that views expressed here today should not be
2 indicative of any action the Commission Staff might
3 make in impending or future proceedings before the
4 Commission.

5 COMMISSIONER O'CONNELL-DIAZ: I think our
6 bought was to kind of take some questions from the
7 commissioners to the panelists and it's based on what
8 has been filed and kind of just to get the ball
9 rolling with regard to the discussion.

10 ACTING CHAIRMAN SCOTT: So that California
11 Commission has declared that the public charging
12 stations are not utilities and therefore free of most
13 regulation. So is that the path that we should take
14 and why or why not? I think I'll start the
15 discussion there and anybody -- you want to go in the
16 same order we went in before.

17 MR. SCOTT WISEMAN: Sometimes it's difficult
18 for us to say in the Midwest, but I think the
19 California folks got this one right.

20 COMMISSIONER O'CONNELL-DIAZ: I want to just
21 say something. I have a good friend in California
22 and when I was in law school and I would like go get

1 some big legal research project and he would go, I
2 found the right case. And I remember going to one of
3 these professors and I had this great case and it was
4 right on point and he looked and said, But it's in
5 California.

6 MR. SCOTT WISEMAN: Well, I think that the
7 conclusion that seems like that they came to was
8 that -- and it really melds well with what we're
9 trying to do here in Illinois and that's creating a
10 competitive environment for folks to provide more of
11 these services out there. One of the things that we
12 have and I'm not nearly familiar as California rules
13 as I am with Illinois rules, but we've got our IDC
14 rules that we have to be cognizant of here in
15 Illinois. So that's another thing that sort of
16 drives the thinking behind how this market is going
17 to developed.

18 COMMISSIONER O'CONNELL-DIAZ: And as you see,
19 those IDC rules you my there has to be tweaks made
20 based on the kind of openness that you're suggesting?

21 MR. SCOTT WISEMAN: I think they're provisions
22 within the rules to get waivers and things like that

1 if it's necessary to do that and then of course
2 embedded in that waiver process is the due process
3 and the diligence that the Commission would have to
4 do to create that environment that we want to have,
5 and that is a competitive one.

6 MR. ROSS HEMPHILL: Commonwealth Edison would
7 agree with Ameren regarding that in terms of
8 California getting it right and probably the thing
9 that is going to be the trickiest issue to deal with
10 are the IDC rules. Certainly waivers can be
11 requested and perhaps granted to allow us to do
12 certain things that we otherwise would not be able to
13 do given the public interest, but the IDC rules is
14 something that we're going to take a serious look at.

15 Consistent with what I said earlier,
16 is you have to take a look at also if charging
17 stations were declared to be a public utility, there
18 are a lots of different directions that the
19 Commission would have to go in terms of determining
20 just what regulations would apply -- standards and
21 regulations would apply to those charging stations
22 and I believe that that could actually slow the

1 process if, in deed, what you're trying to do is
2 while still maintaining a protection of the public
3 interest not impede the growth of the technology.

4 ACTING CHAIRMAN SCOTT: Is there something --
5 if I can follow up -- is there something short of
6 declaring it to be a public utility and providing
7 some other different kind of regulatory structure
8 that makes sense?

9 MR. MIKE McMAHAN: We do think that probably
10 some form of regulation in the area of making sure
11 that these are safe, safely installed and then there
12 is some complexities associated with how you price
13 the charging station to the consumer. So the price
14 of the electricity provided to the charging stations
15 is one thing, that would be governed by rate. Then
16 what does the owner of the charging station charge
17 the person who is using that service? And the
18 complexity is that you're really selling two
19 different items. You are selling the charge and you
20 are selling the parking lot.

21 Now some places the parking spot will
22 be free. If you're out in the suburbs in a big Home

1 Depot lot or something like that that doesn't charge
2 for parking spaces. But if you're in downtown
3 Chicago and you have an electric vehicle, you pull
4 into a space reserved for electric vehicles, a person
5 only needs a two-hour charge, but they're there for
6 ten hours. So how do you handle that? There's some
7 discussion that these almost have to turn in to be
8 valeted services.

9 So if you have a charging station
10 inside of Chicago with a parking spot, a person pulls
11 in, they need a two hour charge, the valet charges it
12 and then moves the vehicle out to a different parking
13 space then making that charging station available for
14 the next person who needs it. You can imagine if you
15 have a vehicle at a train station, for instance, and
16 the guy who only needs two hours of charge. He pulls
17 in, he leaves his vehicle there all day long. What a
18 great thing. I got a reserved parking place. I just
19 need an electric vehicle. And then you ask yourself
20 how long is it until you get one of those little fake
21 charging portables on your car so I can get the
22 parking spot.

1 So there's two services that get sold
2 here, the parking spot and there's the electric
3 change and both of those have to be addressed.

4 COMMISSIONER ELLIOTT: You mentioned location
5 and it sounds to be me this is a case of franchise
6 issues. We've got some first in the field locational
7 issues. If you get the spot in the corner where all
8 the traffic is, you've got some issues and there's
9 value to that. How is that all going to be handled
10 in your estimation? What are the franchise
11 agreements and who gets the location and who handles
12 the assignment of those? Is it the cities? How does
13 that work in your estimation?

14 COMMISSIONER FORD: Chicago would be the City.
15 You know that.

16 MR. MICHAEL McMAHAN: I don't know.

17 MR. ROSS HEMPHILL: Those are good questions
18 and I think later we're going to talk about the best
19 way to address this in terms of discussing these
20 issues. Commonwealth Edison doesn't have all the
21 answers. There are a lot of questions and we're
22 very, very interested in pursuing discussions with

1 all parties to try to grapple with this.

2 COMMISSIONER FORD: But wasn't there a meeting
3 with the mayor and Commonwealth Edison along the
4 lines that the City would do those kinds of things,
5 the City of Chicago would be responsible? And just
6 to follow up to my question, even though the
7 utilities were very optimistic about being able to
8 handle the load, I'm worried -- my concern is what's
9 going to happen when you install those charging
10 stations in the homes and businesses around the
11 community, how are those prices going to affect the
12 surrounding areas?

13 MR. MICHAEL McMAHAN: Well, there's two levels
14 of charging. So every electric vehicle will come
15 with a 120-volt charging core. You just plug that
16 into the outlet in your house. We have no concerns
17 over that. That's nothing but a different appliance
18 that gets plugged into the house.

19 COMMISSIONER FORD: Is it the same voltage as
20 the air conditioner?

21 MR. MICHAEL McMAHAN: Anything you plug into an
22 open receptacle in your house is less voltage than,

1 for instance your dryer. However, if you choose as a
2 consumer to have the shorter charge associated with a
3 200 volt charging station which is about half, that's
4 the equivalent of adding a 50 gallon hot water heater
5 to your house, an electric water heater. It's
6 substantial. In some cases it can be equivalent to
7 the load on the house. We do have a concern over
8 that.

9 We have said in our response to the
10 ICC questions that we're not so concerned with the
11 cars. We don't need to be notified when somebody
12 purchases an electric vehicle because the car can
13 travel, obviously. What we care about is where the
14 charging station is, the 240 volt charging station.
15 That's why in our response we requested -- and we're
16 not sure what form it will take whether it's
17 permanent or some other form of notification, but we
18 want to know when that 240 volt charging station goes
19 in and where it goes in. We want to know in advance
20 so we can check the circuit loads and make sure that
21 it's able to handle the loads.

22 One of the features that all the

1 studies indicate is that electric vehicles will be
2 adopted in clusters. This is keep up with the
3 Joneses. If the person across the street buys an
4 electric vehicle, chances are somebody else on that
5 street may too. So when you add two electric
6 vehicles on a 240 volt charging station, then you can
7 get into pocket issues with you're loading on the
8 circuit. That's why we want to know where these go.
9 As far as the cost goes, it would be just like any
10 other new capacity or business, so that gets
11 socialized. So if I have to upgrade a transformer
12 that's no different than somebody building one more
13 house on a street that requires an upgrade in the
14 capacity.

15 ACTING COMMISSIONER COLGAN: To this issue of
16 the public charging stations and whether or not they
17 should be considered a public utility, I know that
18 others want to weigh in on this too; but I think what
19 I heard you say is that the public charging station,
20 there is a line between the distribution of the
21 electricity to the charging station. Once it's at
22 the charging station and is being distributed out,

1 it's outside the regulatory framework of a public
2 utility and it's into the competitive market? Is
3 that the model that I hear you talking about?

4 MR. ROSS HEMPHILL: Yes, that's correct.

5 MR. MICHAEL McMAHAN: Others may want to
6 comment.

7 MR. SCOTT WISEMAN: You've got it exactly
8 right, Commissioner.

9 COMMISSIONER ELLIOTT: If I can piggyback on
10 that clustering issue real quick, and I know it's not
11 going to happen in my neighborhood, but if two people
12 live next door to each other both by Teslas, which
13 are 19 KW, this is not a 50-gallon water heater.
14 Okay? And if they're both on Level 2 charging, I
15 take it from your perspective that everyone should
16 pay for that upgrade, that it should just be
17 socialized to the entire distribution grid?

18 MR. MICHAEL McMAHAN: I'm not taking a position
19 that everyone should or not. This is under our
20 current -- our current process is you would treat
21 that no different than any other new business
22 addition. So if somebody puts an addition on the

1 side of their house and that requires a new
2 air-conditioning unit, that goes into capacity
3 planning. Can the circuit handle the load? It would
4 be no different than that.

5 COMMISSIONER O'CONNELL-DIAZ: I think what
6 you're getting to is, is it standard service or
7 nonstandard service? In your example I think you're
8 suggesting that this is not standard service,
9 therefore the cost causer should fork over the cash.

10 COMMISSIONER ELLIOTT: Well, I think it
11 certainly should be in the realm of debate and
12 certainly not foregone.

13 MR. ROSS HEMPHILL: Yeah, Commissioner, there's
14 definitely allocation issues that we're going to have
15 to grapple with in terms of paying for the costs that
16 are incurred by this new load that's going on the
17 system.

18 COMMISSIONER ELLIOTT: And I think it's
19 important to establish those issues immediately and
20 not say that because there's low penetration levels
21 at the beginning that we need not concern ourselves
22 with those at the start.

1 MR. ROSS HEMPHILL: Yeah, and just to clarify,
2 there's two different perspectives in terms of
3 customer protections as I mentioned earlier. There's
4 a technical consideration and that's where
5 Mr. McMahan is very concerned about having some
6 problems on the system in terms of specific types of
7 load. And then there's the other questions in terms
8 of who pays.

9 COMMISSIONER FORD: And since we're talking
10 about California, are we looking at the best
11 practices from there? Are their costs socialized?
12 Or how are they treating this in terms of two people
13 buying Tesla's next door to each other and the other
14 neighbors are bearing the same cost? Does anyone
15 know what they're doing?

16 COMMISSIONER ELLIOTT: They're having
17 transformer problems.

18 COMMISSIONER FORD: We know. So I think that
19 we need to benchmark and use best practices on these
20 people who we say are certainly doing it right.

21 MR. SCOTT WISEMAN: That's exactly the reason.
22 I know these Jennifers here are kind of anxious to

1 comment. I think you've got another question down
2 the line here about what the Commission's
3 Collaborative can be like. I think that's one of the
4 things that can you can check out from something like
5 that.

6 MS. JENNIFER MOORE: I guess I'm going to bring
7 the conservation back from a legal perspective. I
8 hate to take you back to law school, but I don't
9 necessarily disagree with a lot of the reasons
10 everybody is coming up with the and reasons why you
11 shouldn't declare a public charging station a public
12 utility, but you soon have to get over the hurdle,
13 that being, it may be all well in California what
14 they did; but we still have our own regulations and
15 law in Illinois that we have to adhere to and make
16 work.

17 The way the statute is written now
18 it's overly broad. You could argue -- and there's
19 reason to argue while you shouldn't, but you still
20 could argue that had a public charging station could
21 be considered a public utility especially since they
22 have the exemption for natural gas compressors in

1 there. So whether that could be a debate down the
2 line or the way that the legislation is now, it can
3 be considered a public utility or also an ARES as the
4 service is declared competitive. So it's unclear
5 whether or not a court in looking at how it would
6 interpret it. I don't know how they would come down
7 because there's probably a strong argument both ways.
8 So it should be a consideration that maybe it would
9 be stronger and easier to proceed if you have a
10 legislative change today --

11 COMMISSIONER O'CONNELL-DIAZ: So what I'm
12 hearing you say and I think I'm seeing a lot of heads
13 bounce around the room going like this is that we
14 need to -- in our initiative, in our process we need
15 to have a working group that looks at the legislation
16 as it currently stands in our state. How it fits
17 into this new way that we're going to be using it and
18 if changes are necessary, what those changes should
19 be. Incorporating in that the notion of not light
20 regulation but, you wouldn't want to get in the way
21 of the ball moving forward, but also we want to be
22 true to the way that our regulation is structured in

1 our state.

2 So I think that that would be
3 something that instructively we would take and that
4 would be on the table and certainly we don't have the
5 answers today, but our fine legal minds out there
6 that will be working on this will be coming up with
7 that for us. So that's a great suggestion.

8 MS. JENNIFER HINMAN: I would note that the
9 California decision has been challenged and is
10 currently under review. There are too many reasons
11 for this challenge that would be important to
12 consider here. The first one, without authority of
13 the electric vehicle service providers, the state
14 could not achieve it's environmental goals because it
15 would have no way to discourage daytime charging
16 since it wouldn't regulate the charging rate. That
17 means you now have implications to contribute to peak
18 load.

19 The other one which is pretty relevant
20 to what Jennifer was saying, the legislature would
21 have granted specific exemption to electric people
22 service providers in the statute defining a public

1 utility if it wanted them to not be regulated and
2 this was the case for natural gas refueling stations
3 in the 1990s. So the definition of public utility is
4 kind of broad and similar to the instances in
5 illinois as it is in California. But it doesn't seem
6 like they would be classified as ARES or an electric
7 utility as pointed out by ComEd because of their
8 definition of a retail customer.

9 MS. MADELON KUCHERA: From Blue Star's
10 perspective, I think we agree certainly the
11 statute -- I think it's important to ask this
12 question now rather than later and to thoroughly
13 examine it. But we do think that it certainly could
14 be read that it is competitive services and from a
15 policy perspective we believe there is strong reasons
16 to lean that way.

17 But as to what Jennifer said,
18 certainly you could read it -- I mean, there's
19 opportunities to read it that way. So I think it is
20 important we examine this because we don't want any
21 of us to get down the road and later say you don't
22 have the authority. So the more we thoroughly

1 examine it -- we just did a quick first blush looking
2 at it and certainly thought that there was lots of
3 opportunities to read it as competitive and actually
4 agree with most of the panelists that have been said,
5 but to say that's a final answer on it, we certainly
6 wouldn't do that.

7 ACTING COMMISSIONER COLGAN: Well, I think the
8 way that -- and thank you for the challenges from
9 California. The first one that you mentioned was it
10 wouldn't have -- the State wouldn't have a way to
11 enforce the environmental controls that they were
12 supposed to be putting in place because people may be
13 charging right in the peak of the day. But I'm
14 thinking that if that were on the competitive side,
15 then the price at the charging station, if it were a
16 realtime price, then that would make it a way to have
17 some control over that at least an economic sense
18 because the price of the charging in the middle of
19 the afternoon in July is going to be a lot of money
20 and people would probably avoid that unless they had
21 a situation where they had to get a charge. So that
22 would be one way -- if I was looking at it that it's

1 on the competitive side that that would be a way to
2 look a that.

3 MS. JENNIFER HINMAN: Some of the competitive
4 charging station service providers, for example, in
5 Texas, like the type of innovative rate structures
6 that they're coming up with is just a flat rate. So
7 you pay like \$90 a month and you can charge as much
8 as you want at home or around town at the charging
9 stations and so, there is no incentive. But
10 generally most staff thinks that from a policy
11 perspective if you want a competitive market to
12 develop, that would be a reason not to regulate them.

13 COMMISSIONER O'CONNELL-DIAZ: Say that one
14 again. There ought to be a reason to not regulate
15 them?

16 MS. JENNIFER HINMAN: No, from a policy
17 perspective like a competitive market if you want one
18 to develop, then you probably wouldn't want to
19 regulate that.

20 COMMISSIONER O'CONNELL-DIAZ: I couldn't hear
21 you. Thank you.

22 COMMISSIONER ELLIOTT: Madeline, are you

1 contemplating putting in charges stations or any of
2 the ARES?

3 MS. MADELON KUCHERA: We have not, but there
4 have been some ARES that have and are very actively
5 pursuing this. We're watching them, but that isn't
6 something Blue Star has considered at least at this
7 point, but it's something that absolutely there will
8 be ARES contemplating that. As well as other players
9 we haven't even thought of and have not typically
10 been participating as we know them. So there's
11 certainly going to be lots of players.

12 COMMISSIONER FORD: But isn't DCEO involved in
13 this one? DCEO from our own state, aren't they
14 involved in this with those charging stations?

15 COMMISSIONER ELLIOTT: There's a lot of people
16 involved in this in a number of different levels and
17 it's interesting to listen to the discussion about
18 development of competitive markets when most of the
19 players involved in this are Governments, at least at
20 this stage.

21 MS. MADELON KUCHERA: And I certainly would
22 like to say at least at this stage, but it is

1 something we have seriously looked into as I'm sure a
2 lot of other entities.

3 COMMISSIONER O'CONNELL-DIAZ: I think too that
4 the fact that California is ahead us with a
5 deployment of larger amount of vehicles like this we
6 can -- I'm not suggesting that they're making
7 mistakes, but we can learn by that and view that and
8 bring those real life experiences into our best
9 practices just as Commissioner Ford was noting.

10 So we have that advantage. We're
11 setting the table with this and we will look to any
12 examples to use or not use or modify and this is not
13 going to be a real simple process. It's going to
14 take a lot of hard work, but that's not something
15 that we've ever shied away from. I think it's
16 obviously by the discussion and discord that we're
17 having today, there's so many unanswered questions
18 that we will be looking at in the initiative.

19 MR. SCOTT WISEMAN: Commissioners, I think one
20 of the things that you need to think about and my
21 suggestion would be as this Collaborative starts is
22 maybe have some sort of guiding principle as to what

1 you're trying to get at here because we can think
2 about a lot of things to scare people because
3 regulation is scary and we know that. But if we --

4 COMMISSIONER O'CONNELL-DIAZ: Not this
5 Commission.

6 MR. SCOTT WISEMAN: With \$4 gasoline, people
7 are looking for reasons to do something cheaper. And
8 we have a lot of tools in place now that can get the
9 ball rolling pretty quickly. Now we can make
10 enhancements and maybe that's what the collaborative
11 should be about. But I think maybe one of the first
12 things that the collaborative ought to do is to find
13 some guiding principle that you're trying to get to
14 because I think we want to consent the rollout of
15 these things at a faster pace than what the people
16 that are analyzing the rollout rates have realized.

17 COMMISSIONER ELLIOTT: I'll get to the next
18 question. You mentioned the issue about public
19 policy. You mentioned the issue again of what are we
20 after. I think that for most of the proponents of
21 this, or at least I those trying to gain efficiencies
22 of the existing system that we have, we'd like to see

1 these things utilized off peak power, to the point
2 that competitive providers are going to go flat rate
3 on a monthly charge and balance the summer costs,
4 over the winter lower cost. The consumers are never
5 going to see that. The same situation with home
6 charging. 90 percent of the charging is going to be
7 done at home for the most part and what are we going
8 to do about this in terms of not regulatorily stating
9 that you cannot charge your car at 5:00, but
10 providing some signal that it's in your best interest
11 to do that.

12 A lot of discussion has been about the
13 greenness and the benefits of this. If we're not
14 doing this, then the greenness and the benefits, to
15 me, seem to diminish a great deal. So what are our
16 options regulatorily, commercially, competitively to
17 drive this so that the -- to me this is sort of
18 transformational. You can sub-meter the appliance
19 and treat it differently than an air conditioner or
20 anything else or you can use the mobility of this
21 application that transform rate design and explain to
22 people that every device when it demands power has a

1 meaning. So it can be an educational tool or it can
2 be another air conditioner or refrigerator stuck on
3 the system. So I'm interested in what we can do with
4 regard to providing the -- not the mandate, but the
5 enabling capability to take advantage of off-peak and
6 disadvantage off-peak in some manner. So if you can
7 address that, I would be interested in that.

8 MR. ERIC KOZAC: This is Eric Kozac with Ameren
9 to address that point. One of the things we have
10 going for us to address the green initiative is that
11 the prices are lower at night. So if there was a
12 competitive environment out there where we talked
13 about flat rate, this is all very new, yet there may
14 be another competitive service out there that says
15 they can get data from the vehicle. They may be able
16 to get their swipe time and they say, Well, it's \$50
17 a month, but if you go on this Plan B it could be \$40
18 a month if you only charge between these times. So
19 there are options out there and we have to have price
20 on our side.

21 COMMISSIONER ELLIOTT: But does that require
22 sub-metering?

1 MR. ERIC KOZAC: We are not in favor of having
2 sub-metering because that's going to add cost to the
3 whole electric vehicle process. But there's
4 technology on the vehicles and if they have it on the
5 charging station as well, some do have metering on
6 the charging stations and most of them that I've seen
7 have a swipe card-type device that they're looking at
8 using to tell exactly what time of day they did use
9 the service.

10 COMMISSIONER ELLIOTT: That's commercially, not
11 at home. I'm a little confused here.

12 MR. ERIC KOZAC: It would be -- in some of
13 these areas the ICC Staff has mentioned there the
14 competitive services down in Texas that's what
15 they're looking at is putting charging stations at
16 home and out into the field. And to your point would
17 it be the same unit, I don't know that question.
18 Would the one at home be different than the one out
19 in the field, maybe.

20 COMMISSIONER ELLIOTT: So you're saying that
21 that device at home or in the field would be
22 accessing a different rate structure than what the

1 rest of the customers electrical usage would be? If
2 they're on the a flat rate, for example, by this
3 device you can somehow access the dynamic rate for
4 the electric vehicle?

5 MR. ERIC KOZAC: Yes. They can access that
6 information via the time of day of the swipe card at
7 home or out in the field. And then that particular
8 company if they're buying the power for that, they're
9 grouping their power purchases, they make get 70, 80,
10 100, people, thousands of people on a certain rate
11 and using this structure, so it can be beneficial
12 that way.

13 MS. DEBBIE KUTSUNIS: I'm Debbie Kutsunis from
14 MidAmerican Energy Company. We are still a virtually
15 integrated utility and so I just want to comment from
16 that perspective. In some of our other service
17 territories we have some end use rates and have found
18 some difficulties enforcing those. And I think
19 there's also some issues of do you create a barrier
20 to require the customer to separately meter his
21 electrical vehicle charging. So from that
22 perspective we think that there needs to be a lot of

1 flexibility in recognition that customers don't
2 necessarily understand the difference in pricing and
3 may not understand the requirement to separate
4 metering. So I think to your point, I think we have
5 concerns about any requirement for customers
6 separately meter or a requirement for customers to be
7 on a certain real time or time of use for that
8 particular application.

9 COMMISSIONER ELLIOTT: So that limits your
10 perspective and your ability to be able to move that
11 vehicle to charge off-peak?

12 MS. DEBBIE KUTSUNIS: I think there could be
13 incentives. For example, a lot of us have the air
14 conditioning control. Things like that that could be
15 an incentive for customers to charge at an
16 appropriate time as opposed to something that might
17 appear as a barrier.

18 COMMISSIONER ELLIOTT: Okay.

19 MR. ROSS HEMPHILL: Our experience has been
20 that customers do respond to price. We've learned
21 that through our Residential Real-Time Pricing
22 Program. We're learning that through our AMI pilot

1 and that's going to be the most effective way the
2 provide the economic incentives for customers to
3 respond. And if they're going to be the type of load
4 that electric vehicles and PEVs are going to be put
5 on the system, those are the customers that we're
6 going to try to incentivize in that way. So it's a
7 real conundrum.

8 Going back to the original question as
9 to whether or not it should be regulates or whether
10 it should be competitively provided because then if
11 you are to presume that customers go to an
12 alternative provider and that alternative provider
13 doesn't provide those prices, two thirds of the
14 customer's bill is on supply. And if they're paying
15 a flat rate there, there isn't a lot to play with in
16 terms of the delivery, so how do you get there? That
17 is a difficult question and it goes crossways with
18 the answers that we were talking about in the first
19 question.

20 In terms of whether or not
21 Commonwealth Edison has a position on separate
22 metering, I don't know if Mike wants to add anything

1 to that; but our position is that it's something that
2 we would prefer not to do. It's an added cost to
3 customers which provides another impediment to this
4 technology moving forward.

5 MR. MICHAEL McMAHAN: Dr. Hemphill said it
6 well. We think that technically and significant
7 penetration levels around somewhere between 15 to
8 20 percent but not exactly sure where, but it's
9 essential to have some setting mechanisms that shifts
10 the load to the nighttime. And significant
11 penetration levels, if everybody comes home and plugs
12 those EVs in at 5:00 o'clock in the afternoon, that's
13 going to be a problem. So we need to have some
14 pricing mechanism. I don't think we're settled on
15 what the exact rate would be or mechanism would be,
16 but it needs to be a pricing incentive to encourage
17 people to charge in the evening hours. Where the
18 hour is available that also helps renewables because
19 that's when a lot of wind blows overnight and it's
20 not used right now, so that would help that as well.

21 On the public charging stations and
22 the competitive environment you -- I would still say

1 we wanted the power from an electric utility to the
2 charging station to be on some sort of real-time
3 pricing. Now, what that competitive provider charges
4 his person would up to them, but that would be
5 reflective of what their cost is. I think that's
6 what you were talking about is that in that case when
7 you're talking about swiping in the garage like
8 leasing the cable box so the individual home owner
9 doesn't have -- owns the charging station, somebody
10 is renting it to them and then that swipe depends on
11 what their rental fee would be or charges would be
12 for that box. We have to make sure that at
13 significant penetration levels that that load gets
14 shifted.

15 COMMISSIONER ELLIOTT: But you don't feel the
16 urgency to deal with is now?

17 MR. MICHAEL McMAHAN: I think the urgency to
18 deal with that is now, but I would say as an opinion
19 the sooner the better to start -- you have to
20 balance -- you want people to adopt electric
21 vehicles. You also want to start incenting (sic) the
22 right behavior. So you have balance of those two

1 things and the earlier the better so that people will
2 be meeting expectations. But technically at low
3 penetration levels it's not an issue. Technically
4 you get up around 20 percent, we think that's going
5 to be a problem.

6 COMMISSIONER ELLIOTT: It is at the end of a
7 five-day heat swell in the summer.

8 MR. MICHAEL McMAHAN: Pardon me?

9 COMMISSIONER ELLIOTT: Even at low levels.

10 MR. MICHAEL McMAHAN: On an individual feeder,
11 you may be right.

12 COMMISSIONER FORD: But doesn't the City of
13 City already own some charging stations?

14 MR. MICHAEL McMAHAN: I'll let the City of
15 Chicago comment on that. They're planning on it.
16 I'm not sure where they are.

17 ACTING CHAIRMAN SCOTT: Can I follow up on
18 something you said. The point I want to get to -- I
19 just realized my most recent history so forgive me
20 for that -- but when you mentioned about the
21 renewables and the aspect of that and how that plays
22 in, I know you're trying to figure out how to deal

1 with your portfolios and how to build that up. Is
2 there a nice energy between these two issues and
3 moving people off of peak times and helping to
4 purchase renewables?

5 MR. MICHAEL McMAHAN: When you read that the
6 electric vehicles that support renewable energy, if
7 you dig into that. From my reading and my studies,
8 it's basically saying by shifting the load to night
9 where you have particularly wind power available,
10 wind blows overnight, you're able to absorb that.
11 And in the absence of some significant storage
12 capacity, that energy that is being produced over the
13 night hours is causing a problem, may even cause a
14 nuclear plant or coal plant to be forced to back down.
15 So the more load you can put on it -- and I think
16 Commissioner Elliott said, we have -- if you can
17 shift the load, we have enormous capacity for this.
18 So anything we can do to shift that, you reduce
19 mitigating those issues with large amounts of wind,
20 there's going to be more coming onto the system
21 overnight, the impact on the base load plants by
22 having something to use that power in those electric

1 vehicles is a perfect issue for that.

2 COMMISSIONER ELLIOTT: And the implications of
3 that are going to be on the vehicle. To me this is
4 an application that will allow you to explore the
5 full benefits of that which if you show someone a
6 dynamic price and they can all of a sudden twist the
7 dials and knobs on everything and have it automated
8 to program thermostats and alike. So you can do a
9 number of things. That's why I personally have
10 questions about sub-metering as well. I'd like this
11 to just be another appliance, but use the opportunity
12 explain to people what the differences are. And I'm
13 concerned about waiting until we have significant
14 penetration levels to do that.

15 COMMISSIONER O'CONNELL-DIAZ: Yeah, I think
16 that the question point of starting this at this
17 point even though Illinois obviously is not in the
18 same place as California or some of the other states
19 that were advantaged or disadvantaged as fate may
20 tell us by being an area where we're seeing heavy
21 deployment, I'm not talking about all of their cars,
22 but we need to be prepared. And so if we don't start

1 this today and figure out first all the questions to
2 ask, we're going to find ourselves up a creek without
3 a paddle and there would be potential deployment of
4 these vehicles and we will not have the rules, the
5 legal things that we need to do to make it square
6 with what we have now or create new rules that we may
7 need.

8 So it's imperative that we start this
9 process and have everyone in the water swimming
10 towards the same goal of being able to structure this
11 so that we do get a certain segment of the
12 population. Electric vehicles are not going to be
13 for everyone. They're going to be for a certain
14 segment of the population. But that, again, is I
15 think where we find ourselves at this point in our
16 country. We all need to be doing different things to
17 change the way that we consume energy in this
18 country. And if it is electric vehicles or somebody
19 getting on some of the various programs that are
20 going to be out there energy efficiency, these are
21 all things that -- and the overall picture will be a
22 better picture for us price wise and in energy

1 security. So it's imperative that we have these
2 discussions and we work through it and it will
3 require a lot of work from everyone.

4 ACTING COMMISSIONER COLGAN: I have a general
5 question for anybody that wants to try to answer it.
6 This pretty much seems like we're dealing today with
7 a very specific aspect of the future and energy
8 issues in the country with the electric vehicle, but
9 it fits into a larger scheme of things. It fits into
10 a national security picture of reducing our
11 dependance on foreign oil. It plays into the
12 bringing more renewables, intermittency, kind of
13 deals with some of those issues and the greening of
14 our supply system, and so the electric vehicle kind
15 of fits in there.

16 And we also always talk about cost
17 causers and the beneficiary pays. And it's kind of a
18 typical American situation because we have like this
19 very general social platform that allows for the
20 advancement of individuals. So people who decide
21 individually to go for the electric car, they're
22 going to get the benefits from that. But then

1 society at large is going to benefit from this also
2 as we get further -- I mean to begin with its going
3 to be minimal, but as we get into it, it's going to
4 be -- I mean, it's part of the big picture, isn't it
5 that we're going to use this to wean ourselves from
6 the dependance on foreign oil and the whole greening
7 of our generation system.

8 So the issue then becomes who pays.
9 What is the right way to allocate the costs of the
10 build out that we need to have to do all of this.

11 COMMISSIONER FORD: Just to follow up on that,
12 John, everybody wants the greener and environmentally
13 sound society, but no one wants to pay for it.

14 ACTING COMMISSIONER COLGAN: Exactly.

15 COMMISSIONER ELLIOTT: Going back to the
16 question I asked, you have the two Tesla's 19 KB,
17 we're all going to socialize those costs and these
18 guys decide to charge on peak. I mean, let's raise
19 the LMP -- and you extrapolate this to everybody --
20 let's raise everybody's cost and raise the marginal
21 cost of energy. That is not a benefit to society in
22 general or society as a whole. So this is a great

1 question and I would love an answer.

2 MR. ROSS HEMPHILL: Yes, that is probably one
3 of trickiest issues to deal with. Since taking the
4 position that I've taken with commonwealth Edison,
5 I've been through a number of collaborative
6 processes. And you make great progress in
7 Collaborations and workshops on many, many issues;
8 but the one that's the stickiest is when you get to
9 the question of who pays.

10 COMMISSIONER O'CONNELL-DIAZ: Exactly. I think
11 we all pay. Everybody pays for actions that if we
12 don't do this we're going to pay. If we don't change
13 the way we consume our energy, use it, we are all
14 going to pay. So for us to sit here and -- I've had
15 it suggested to me that we don't need any of that new
16 stuff. I don't have a benefit. But there are system
17 benefits to this. The same could be said for
18 infrastructure improvement. Well, that's great.
19 That's fine. But if you've got pipes that are
20 120 years old and need to replace them it has to be
21 paid for. And so I think the Telsa question is kind
22 of like a luxury item I would think given the fact --

1 what do those cars cost, \$110,000? That's not your
2 meat that's going to be on the street, but that is
3 the proper question to ask. How will we deal with
4 that? Is there a rate structure that should be for
5 that?

6 ACTING CHAIRMAN SCOTT: Because it goes back to
7 what John was saying too, the people who are using
8 the electric vehicles are not using gasoline,
9 therefore they're not part of the demand that drives
10 the prices up in times of lower supply. There's a
11 whole lot issues that are all interconnected here and
12 with the advent of the renewables, what will that do
13 in terms of what we know is coming down the line in
14 terms of power generation and what the costs are
15 there that are coming through new regulation. I
16 mean, there's a lot of issues developed and I think
17 you're right, ultimately we all I end up paying and
18 the question is just what makes the most sense in
19 terms of the allocation.

20 MR. ERIC KOZAC: We bring up scenarios that are
21 tough to solve. I don't have an answer for the Tesla
22 question. But when you look at the broader -- and I

1 think what we've seen in some of our conference calls
2 with our colleague in other states is that the
3 electric vehicles when they do roll out, most of the
4 people are going to be charging at night. There's a
5 lot of good things that are going to happen that will
6 fall right into place. So while we might not have
7 every issue solved in some of these tougher questions
8 and these peak areas that happen, we shouldn't lose
9 sight of the fact that most of this is lining up
10 pretty well for the goals we're trying to accomplish
11 and it's gets back that we don't want to do things
12 that maybe deter people from buying electric vehicles
13 versus -- there is a lot of benefits that outweigh
14 that and if we have to -- I hate to say socialize the
15 cost for one transformer is one subdivision where two
16 doctors are competing for whose got the fastest
17 electric vehicle, but those things may happen
18 regardless. The overall benefit I think is going to
19 be there.

20 COMMISSIONER FORD: Where two utility
21 executives live.

22 COMMISSIONER ELLIOTT: I think if you're

1 Level 2 charging from 5:00 to 8:00, you're right in
2 the thick of that peak demand period. So unless
3 something has changed in the Midwest and the summer
4 peak is no longer those hours -- somebody can explain
5 that to me.

6 MR. MICHAEL McMAHAN: I would comment that -- I
7 just take a little different opinion than my
8 colleague over here. We think that most people after
9 driving their electric vehicle to work are coming
10 home, they're going to get out of the car and they're
11 going to plug it in. And there's a study that kind
12 of indicates that as well. So that's why we're so
13 concerned about the load shifting. That's just a
14 personal opinion here. I would also add that if
15 you're going to go to -- from a regulation standpoint
16 if you said, Well the cost-causer has to pay for
17 this. I think that would make -- and so you say you
18 tell a person, Okay. You permit 240 volt charging
19 station utility assessed that they have to upgrade
20 the transformer, you have to pay for that. I think
21 you're going to make that vehicle costly.

22 COMMISSIONER O'CONNELL-DIAZ: One more comment

1 and then we'll break. As we can see there's like so
2 many questions that we don't have the answers to, so
3 right now we're going to take a ten-minute break.
4 I'd like to thank our first group of panelists. I
5 thank you for your discussions and we've got a lot of
6 work to do. So we'll take a ten-minute break and
7 we'll come back at 10 to 3:00 and we'll have our next
8 panel. Thank you.

9 (Whereupon, a recess was taken.)

10 COMMISSIONER O'CONNELL-DIAZ: Thank you
11 everybody. We now have our second panel who have
12 joined us to continue the robust discussion we
13 started and I think we'll have even more questions
14 based upon the presentations that will be in the
15 second part. First we have -- I'm just going to run
16 down the line -- the City of Chicago Josh Milberg,
17 CNT/I-GO Anne McKibben and Jonathan Goldman, CUB
18 represented by Chris Thomas, ELPC, Madeleine Weil,
19 ICEA Sharon Hillman, and NRDC Becky Stanfield. Am I
20 missing anybody?

21 (No response.)

22 Great. Opening remarks from anybody

1 or should we just get right down to questions? City
2 of Chicago, let's go with you.

3 MR. JOSH MILBERG: Good afternoon. My name is
4 Josh Milberg. I'm the First Deputy Commissioner of
5 the Chicago Department of Environment and I want to
6 thank all of you Commissioners for allowing us to
7 come in and discuss this very importantly question.
8 I thought that today's conversation kicked off very
9 well. It was very exciting to see Commissioner
10 Malec-McKenna and (Check) of our Chicago Electric
11 Vehicle Project.

12 We believe that this is a unique
13 opportunity to really get involved in the development
14 of a marketplace and it's great because it's going to
15 be a ramp up. It's going to allow us to learn as we
16 see a slow introduction of these vehicles, but it's
17 very important that we start to build the
18 infrastructure necessary and the policy frameworks
19 necessary to make sure that this can grow into a
20 robust market.

21 The City of Chicago very much believes
22 in electric vehicles and e-mobility more broadly.

1 It's a core concept of the Chicago Climate Action
2 Plan, but we also noted extraordinary importance to
3 make sure that we're meeting the needs of our
4 customers and the residents and businesses more
5 generally as we build out the infrastructure.

6 I also think it's important that we
7 think about differentiation between publicly
8 available infrastructure, which is the project that
9 the Commissioner Malec-McKenna and Governor Quinn
10 kicked off and that's available in people's parking
11 lots and garages. From the City of Chicago's
12 perspective, we look at this from a portfolio
13 perspective looking at this various technologies that
14 are available and looking for the best way to
15 employ the technologies to meet the needs of the
16 customers.

17 We think that this is extraordinarily
18 important to move down a facilitative approach to
19 determine really what are those key questions, we
20 heard are number of them and I'm sure we will hear
21 more during the next hour, but we feel like it will
22 be extremely important to have that collaborative

1 spirit to continue forward. The City of Chicago has
2 convened the Chicago Electric Vehicle Consortium to
3 help us to think through our strategy on mobility
4 from a regional perspective and from a city
5 prospective. And we feel like that can be
6 extraordinarily valuable as we move forward. We feel
7 like a similar approach here would make a lot of
8 sense. I look forward to answering any questions.

9 COMMISSIONER O'CONNELL-DIAZ: Mr. Thomas.

10 MR. CHRIS THOMAS: Thank you, commissioners for
11 inviting us to speak today. We've been working very
12 closely with the City, Governor's office, The
13 Illinois Science and Technology Illinois Science and
14 Technology Coalition, DCO, and also internationally
15 through the Korean smart grid collaboration trying to
16 understand just using the impact not only in
17 Illinois, but everywhere. I can tell you will pretty
18 safely that these are new challenges for everyone,
19 everyone globally. No one has figured it out. The
20 questions that you're asking are the right questions
21 and they're not answered yet and I think that's okay.
22 I think, in fact, you can expect to answer all of

1 them right up front. In addition to the way that
2 Josh was bifurcating the issues, we need to think
3 about the short-term issues and the long-term issues
4 here.

5 The short-term issues are kind of how
6 do we manage the customer experience for those first
7 1000, 5000, 10,000 cars that are going to be on the
8 road in Chicago and how do we create a process to
9 feed back our learnings into the bigger solution for
10 the system. I think a lot of the ideas we've talked
11 about today or talked about earlier are not defined
12 yet. We've still got a lot of unanswered questions
13 and I think we have to make sure we're focusing first
14 on that initial experience and secondly on how we use
15 the information we gather there to improve the
16 system. I'm happy to answer any question as we go
17 forward.

18 MS. BECKY STANFIELD: Hi, I'm Becky Stanfield
19 with the National Resources Defense Council. I also
20 want to thank you for initiating this process. What
21 I would like to urge at the onset is that whatever
22 happens next in this process be guided by a set of

1 specific rules that the Commission would adopt. And
2 our suggestion is that those goals are to identify
3 and eliminate barriers as to why PEV option, to
4 maximize the environmental benefit of PEVs and to
5 minimize adverse impacts.

6 And in addition to having the goals
7 laid out for the next phase of the process, we hope
8 they would start with recognition that service
9 planning and load management would be essential to
10 achieving this goal. So that at a minimum utilities
11 should be notified as to the location and nature of
12 planned charging stations and infrastructure so they
13 can facilitate service planning, streamline
14 installation, and prevent service disruption. That
15 effective load management will be essential and will
16 require smart charging, so in other words, charging
17 that can respond to pricing goals, and that these
18 capabilities need to exist regardless of whether the
19 delivery is in the home or the workplace for public
20 charging.

21 So with that overview, I would just
22 say a couple of initial things. We agree with others

1 who have said that California got it mostly right
2 which is not to say there's no regulation, but to say
3 that limited regulation of charging stations to
4 ensure reliability and the same environmental
5 performance that is required of other wholesale
6 electricity providers. We think that the current
7 regulatory paradigm is sufficient because it fails to
8 return the value of additional revenue from PEV
9 stations to customers. So to the extent that there's
10 a lot of new load that will result in a higher
11 revenue recovery and that absent something like the
12 coupling, customers wouldn't get the benefit of that.
13 So that's one way to make sure the customers get the
14 benefits of changing that load shape.

15 COMMISSIONER O'CONNELL-DIAZ: So it's your
16 position that the coupling is a good methodology
17 achieve returns to customers?

18 MS. BECKY STANFIELD: That is definitely what
19 we believe.

20 COMMISSIONER ELLIOTT: The utility doesn't get
21 any revenues from the supply side. Im a little
22 puzzled by that.

1 MS. BECKY STANFIELD: It's the recovery of the
2 fixed charge revenue that would be resulting from the
3 higher level the sales.

4 COMMISSIONER FORD: I guess I would add --

5 COMMISSIONER ELLIOTT: Assuming that they are
6 recovering fixes costs on variable rates.

7 MS. BECKY STANFIELD: Correct.

8 COMMISSIONER FORD: I was going to simply add
9 the City of Chicago, what are we going to do with
10 their revenues? They're going to go into the City to
11 offset some of the cost of doing these stations?

12 COMMISSIONER ELLIOTT: What price are you going
13 to charge?

14 MS. BECKY STANFIELD: One more point and I
15 know -- I don't want to stand in the way of others
16 getting in here, but the third thing is just that
17 generally PEV loads should be treated like other load
18 for the purposed of cost recovery in our view.

19 MR. JOSH MILBERG: So you asked a question
20 around pricing. Where are these revenues going? The
21 project that was described by Commissioner
22 Malec-McKenna and Governor Quinn was for a grant that

1 this we provided to our competitive process to
2 implementer and so that implementer is both bringing
3 significant dollars of their own to install this
4 project and it is responsible for building a business
5 around to provide upfront capital in a grant to allow
6 them to enter this market and start to build a
7 marketplace.

8 COMMISSIONER FORD: So it's going to private
9 funds after this is done?

10 MR. JOSH MILBERG: In short, whatever is
11 charged by the company, 350 Green, will go to 350
12 Green.

13 COMMISSIONER O'CONNELL-DIAZ: Ms. Hillman.

14 MS. SHARON HILLMAN: My name is Sharon Hillman
15 and I'm the founder and executive vice president of
16 MC2, an alternative retail electric supplier. I'm
17 here today on behalf of ICEA, the Illinois
18 Competitive Energy Association who's submitted
19 comment and I guess I would say I probably represent
20 along with Blue Star private industry and we
21 appreciate this opportunity to get involved in the
22 beginning of the process. And along those line we

1 had an invitation to bring in a visual aid when we
2 got the invitation.

3 MC2 has been working with one of the
4 local distributors of public charging stations and
5 that is a demo of a Level 1 charger. As you can see
6 it's got a screen. You can open the gate, put in an
7 RFID card and it has the ability to pricing. And
8 I'll also ask a trivia question today: How many
9 charging stations do you think are already in place
10 in the Chicagoland area today? 150? More than 75?

11 COMMISSIONER FORD: More than 75.

12 MS. SHARON HILLMAN: There are almost 100 in
13 the Chicagoland area that have gone in under private
14 industry not part of Government projects. Our
15 problem in Chicago for all of those who want to see
16 those vehicle grow is that we don't have any cars.
17 No entity can really cover that and we can go into a
18 lot of reasons, but I think if we talk about this
19 initiative that ought to be part of agenda which is
20 how do we remedy that issue and what's the right pace
21 of development given that this has not been a state
22 that has been targeted by the industry for early

1 deployment and even really probably midlevel
2 deployment and that really gets to the issue of the
3 balance around some of the things I know that were
4 mentioned in the first panel simple rates versus more
5 complex rates.

6 I think RTP is a great option which
7 showed up in ICEA comments, but a lot of folks who
8 are experts in early adoption feel that things
9 shouldn't be too complex up front. So I would agree
10 with Mr. McMahan's comments and Mr. Ross' comments
11 about balance. And I think the other thing just
12 really quickly from the first panel to talk about
13 metering and sub-metering, there's a lot of pilots
14 going on right now. The more advanced electric
15 vehicles released and developed, they have metering
16 in the car. And there are pilots going on now in the
17 State of Indiana to determine if whether or not that
18 measurement level that on the car is enough and we
19 don't need to put anymore infrastructure in terms of
20 metering. So lots to learn and lots to do. Thank
21 you.

22 COMMISSIONER O'CONNELL-DIAZ: Thank you for

1 bringing the station. A picture is worth a thousand
2 words, but the real thing is worth 10,000 words.

3 MS. ANNE McKIBBEN: Hi, I'm Anne McKibben. I'm
4 policy direct at CNT Energy, a division of the Center
5 for Neighborhood Technology. And first off, I'd like
6 to thank you for the invitation today. We're
7 particularly interested in load shape and the effect
8 that EVs will have on load shape in Illinois and also
9 in customer education. Our experience administrating
10 includes state residential real-time pricing program
11 have given us a good bit of insight on how to educate
12 customers about when they should plug tough.
13 Electric cars would be one of those things. That
14 sort of customer education is very important. So we
15 very much appreciate the ICC taking a proactive
16 initiative on electric vehicles and it will be very
17 productive. Thank you.

18 MR. JONATHAN GOLDMAN: Hi, Jonathan Goldman
19 with I-GO car sharing. I-GO is a nonprofit
20 organization started almost ten years ago for the
21 Center for Neighborhood for technology. We currently
22 serve about 15,000 members in the Chicago region.

1 Thank you for putting this process together and
2 allowing us to come here today and comment.

3 COMMISSIONER O'CONNELL-DIAZ: And also Jonathan
4 also volunteered to bring in charging stations. So
5 thank you very much for stepping up to the plate and
6 helping us out.

7 MR. JONATHAN GOLDMAN: I-GO is partners with
8 the City of Chicago, State of Illinois, and a number
9 of other partners on an electric vehicle project that
10 we're going to be rolling out in the coming months.
11 We will be receiving through the City's efforts 36
12 charging stations that we are going to place at 18
13 solar canopies that we're going to be building in the
14 Chicago region funding through DCO and private
15 foundation dollars that we've raised and we'll be
16 paring them obviously with 36 electric vehicles yet
17 to be determined as that marketplace develops a
18 little bit more.

19 We've spent a considerable amount of
20 time thinking about the regulatory scheme or more
21 properly the lack thereof in Illinois or for EVs and
22 EV charging and have a lot of idea both as it

1 pertains to our project in particular, but also to EV
2 usage in general. An sitting in the audience
3 listening to the earlier panel, we heard a lot about
4 the challenges and difficulties it makes. I'd like
5 it talk to you a little bit more as we get into it
6 about the opportunities that I think exist
7 particularly around pairing our renewable distributed
8 generation with the EV charging as we're going to be
9 doing and also as a number of people have noted,
10 there's going to be a strong propensity to do EV
11 charging at night and the ability to provide
12 incentives through time of day and real-time pricing,
13 you know, should not be looked at as a societal cost,
14 but much more a societal benefit to all the
15 consumers, the EV owners, but also to the utility
16 companies as we engage and really beginning to
17 reshape the load profile and I forget who it was that
18 commented being a wash and power in the nighttime
19 hours, there actually is a potential for huge
20 financial savings to the utilities themselves. So
21 I'll pause here as we get into questions I'd like to
22 talk about that much more.

1 MS. MADELEINE WEIL: I'm Madeleine Weil. I'm
2 the policy advocate with the Environmental Law and
3 Policy Center. I guess I'm the last panelist, so
4 thank you very much for your organizing this
5 initiative and I'm very glad to participate. I'll
6 keep this very brief because actually I happen to
7 agree with a lot of things that my fellow panelists
8 have already laid out. I'll just say that I think
9 Becky had it right in framing the overall objectives
10 here as number one making sure that we're reducing
11 barriers to consumers about EVs as much as possible.

12 And number two, is that as
13 infrastructure and policy, regulatory scheme,
14 consumer behavior develops, or optimizing the
15 environmental benefit and the economic benefits that
16 are associated with the EVs. Obviously there's been
17 a lot of discussion about trying to do that through
18 shifting load to nighttime and we think that there
19 are very significant benefits doing that. The other
20 opportunity we see is in trying to offset some of the
21 peak hour charging that will inevitably happen with
22 solar there's a really nice match up with peak hour

1 and solar production there and we think that that's
2 another good opportunity.

3 Just to jump off the something Chris
4 said, there will be a lot of things learned in this
5 process and in similar processes going on throughout
6 the country and around the world and we should have
7 the flexibility over the next couple of years to see
8 what the best practices are as they develop. On the
9 other hand, there are some things that we all know
10 once the infrastructure is in the ground, once
11 consumer patterns are established, they're very
12 difficult to change. So there are a couple things
13 that we do need to deal with on the front end.

14 We think that shaping consumer
15 behavior, shaping the infrastructure to benefit the
16 environment and the economy is the big frame for what
17 we need to be looking at here. So thank you very
18 much and I'm excited to answer questions. Thank you.

19 COMMISSIONER ELLIOTT: Just to go to Becky, it
20 sounds simple, but everything you said was in direct
21 conflict with everything else you said. In terms of
22 making is simple -- we can make it simple. We don't

1 have to do anything. Some of the other flat rates
2 until someone plugs in a car. That is not a barrier
3 to any entity. We're not doing anything. In order
4 to maximize the environmental and economic benefit of
5 shifting that to off-peak, now we're going to start
6 talking about putting things in there that people
7 aren't necessarily going to like which may be RTP as
8 Sharon mentioned.

9 I'd like to think that the early
10 adopters are going to be the easiest ones to adopt to
11 these changes. I think it's going to be the ones
12 that don't have a clue about what's going on with
13 their automobile and the environment or anything else
14 with regard to electricity that's going to be the
15 toughest. So I think it's actually going to be
16 easiest if we do this upfront.

17 MS. BECKY STANFIELD: I don't know if you
18 understood me to say something that would oppose
19 actually getting into those.

20 COMMISSIONER ELLIOTT: No, I'm just trying to
21 point out that limiting barriers to entry and then
22 trying to do these other things that are going to

1 create change. There is going to necessitate change
2 and it's going to be a change that isn't going to be
3 well accepted necessarily.

4 MS. BECKY STANFIELD: We've talked in the past
5 about the short term versus the long term trying to
6 do things that create the market and reduce the
7 barriers in the short term while wrestling with the
8 similar issues of how we make it all optimized over
9 the long term. I still believe that we can and
10 should be kind of thinking of it in that way. What
11 can we do in the short term to make sure we are
12 maximizing deployment of PEVs and then what do we
13 need to be doing to be ready for three or four, five
14 years down the road when there is enough penetration
15 that we need to have all the other partners with us?

16 COMMISSIONER ELLIOTT: Well, the first question
17 I'd ask everyone and I probably should have asked it
18 to the last panel as well, is when you buy a car, you
19 don't get an electric rate. So what authority does
20 this Commission or any of us have in terms of having
21 someone move off of a flat rate to the and RTP which
22 we know is going to be the best solution to all of

1 these problems, but how do we manage that and should
2 we?

3 MS. BECKY STANFIELD: Commissioner, I think
4 it's a very important question. I think the best we
5 can do now as far as authority is encouragement and
6 that starts -- in our comments we had suggested a
7 coordinated process at the time of sale. From the
8 customer's perspective, that's the time to think
9 about these things that think. We know this car is
10 going to be different particularly with the early
11 adopters and they're thinking, What have I got to do
12 to make this thing work? And if we can have
13 education starting at the point the sale, I think
14 that will be very helpful in having them understand
15 that this electric rate is part and parcel to the car
16 they're buying, they're one package.

17 Now, Mr. McMahan made a good point
18 earlier that from the utilities perspective, he's not
19 interested in the installation of the charger at
20 home, that that's the point that makes a difference
21 to the utilities perspective. From a program design
22 perspective, however, if you have to educate every

1 customer in the state that might buy an electric
2 vehicle that they need to talk to the utility company
3 that put in a charger or even every electrician in
4 the state who may come to install one, just say you
5 have to tell your customers when you install a call
6 charger that they need to talk to their utility.
7 That's going to be very difficult. And at that point
8 in time might come a little separated from the buying
9 of the car as well. If you were to educate a dealer
10 association, it might be much easier to get that
11 information --

12 COMMISSIONER O'CONNELL-DIAZ: But here I think
13 we can utilize a stage that's there for the car. The
14 Secretary of State's Office could be apart of that
15 that process of -- and the other think -- and I
16 didn't mean to interrupt you.

17 MS. BECKY STANFIELD: It's okay. It's an
18 excellent point.

19 COMMISSIONER O'CONNELL-DIAZ: I think people
20 that are going to be purchasing these cars, certainly
21 the first waive, first adopters, there's going to be
22 educated people they are also going to understand

1 that there's a different behavior than driving up to
2 the pump and putting gas in and paying \$4 a gallon or
3 \$5, whatever it's going to be. In order to license
4 the car, you're going to have to have the car
5 licensed. It's a different type of vehicle and maybe
6 that's the place where you would have to have -- and
7 I don't want that to be a barrier to someone
8 purchasing a car like that, but you need to know how
9 to operate it and you need to know how to operate it
10 so it's optimal for your pocketbook too. And I think
11 people are very savvy with regard to their cost
12 conscience. These are not supremely inexpensive
13 cars. They understand that their behavior is going
14 to be part of -- and that may be the reason they're
15 buying them too.

16 So I do agree that it's a
17 multi-fronted approach. And I think in our
18 initiative we're going to be balancing how do we get
19 that customer educated. And I don't think it's that
20 we're going to be educating everyone in Illinois
21 about electric vehicles. It's a certain segment
22 that's going to be buying this vehicle and it isn't a

1 car that everyone is going to buy. But there's going
2 to be people out there buying that car and we have to
3 get them in here and our state selling them first
4 off. We need to have our kind of educational and our
5 own infrastructure with regard to how and what's
6 going to happen, then we're ready to go.

7 COMMISSIONER ELLIOTT: Maybe we should have
8 something on the lid that you open up that says runs
9 best on real-time pricing.

10 MS. JONATHAN GOLDMAN: I think there will be
11 multiple avenues for something to have to happen
12 either the utilities, through the car dealerships,
13 but the key piece that's missing right now is a
14 regulatory scheme. There are no rate structures
15 specific to --

16 COMMISSIONER O'CONNELL-DIAZ: We don't like
17 that word "scheme." It sounds bad.

18 MR. JONATHAN GOLDMAN: Regulatory structure.
19 And that's really the missing piece of
20 infrastructure. We've got charging stations in place
21 and coming, we've got the cars that will eventually
22 be here, but if you look, for instance, at what was

1 done in Michigan, there was a series of different
2 rate options that were adopted by the PUC there. And
3 I think one goal of this process should be to have
4 utilities put in place multiple options. Perhaps a
5 consumer who's charging at home just wants one rate
6 structure for the home and the car. Maybe someone
7 else wants the ability to break the car out
8 separately either on the flat rate or on a time of
9 day rate of real-time pricing rate.

10 From I-GO's perspective, we think
11 there ought to be a rate put in place that joins
12 together where someone is putting in similar
13 generation tied to the EV charging because there's
14 huge benefits there. So I think once the
15 infrastructure of the rates are put in place, that
16 will drive consumer behavior once they have options
17 and if the rates are done correctly, it will be
18 incentives for them to choose one rate structure over
19 another and to get the societal benefits that we're
20 looking for.

21 MS. BECKY STANFIELD: This may seem obvious,
22 but it's not necessary to conclude that you have the

1 authority to regulate as a full public utility. What
2 California did is that they found that others sources
3 of authority related to this authority over tariffs
4 and rules and rates to take the limited approach to
5 regulating the market to ensure service was not
6 interrupted and the environmental standards that they
7 have worked so hard are carried over to this new
8 market.

9 MR. CHRIS THOMAS: We have a set of programs
10 here in Illinois that have been extraordinarily
11 successful in terms of sending dynamic pricing to
12 customers and not the real-time prices for both
13 utilities. And I think that that is an
14 infrastructure that we can use. There's already an
15 established educational channel for both utilities in
16 that -- on those programs. And I think that we
17 should expand what we are already doing on real-time
18 pricing to the car frankly.

19 We've already got an obvious solution
20 in my mind siting right in front of our face. We
21 just need to have the sort of vision to push it
22 forward and to tie the education together at the

1 point of sale in a way that does stimulate the right
2 sort of connecting for the customer so that they can
3 see that this car can be extraordinarily beneficial
4 to them, the environment, and the electricity grid if
5 they just follow the economic as it is.

6 MS. SHARON HILLMAN: I think that I agree with
7 Chris around in terms of the traditional utility
8 option for residential customer RTP is in place in
9 both the major utilities. I'm on it myself at my
10 home. My company doesn't currently offer residential
11 ARES offerings, but others are starting to do that
12 and we will be. Given my history on RTP, if I can
13 get my hands on an electric vehicle, I will very much
14 pay on RTP. Anyone who really understands will
15 understand why it's a good option. And I think ComEd
16 did a nice analysis of that in their comments.

17 As to the education, one of the things
18 that if you've spoken with GM or Nissan about what
19 they're doing at point of sale, they are rolling out
20 business models as to how they deliver these cars.
21 GM talks about their team. Nissan also has a whole
22 different process for buying and screening electric

1 cars. They actually will reject you if they don't
2 think you have the right driving habits.

3 So a lot of the education is actually
4 being offered by the vehicle manufacturers in terms
5 of they want the consumer to have a good experience.
6 They want this to succeed. I think that in terms of
7 keeping the cost down for the public because this is
8 a niche. It's certainly at the beginning even 20
9 percent it's still a niche. Coordinating there is
10 important and that may include what the utility
11 options are or what the free market options are.

12 We're just starting to see ARES
13 competition and other aftermarket here. My own
14 company one of the products that we offer at this
15 small commercial level that distinguishes us is a
16 variable priced product. A price that varies with
17 time of day, but also has price cast for extreme
18 situations. So that you can take away some of the
19 anxiety that goes with going something like an hourly
20 or time of use type price.

21 MS. MADELEINE WEIL: I think that the
22 automobile dealers are going to be the very best

1 mechanism for communicating the types of prices and
2 rates that are available to benefit the customers
3 that they want to sell to. I think that they're
4 definitely on that and they're big fans of time
5 variable rates. Again, as another sort of framing
6 principle, we think that realtime pricing is going to
7 be a terrific option for a lot of perspective
8 electric vehicle buyers in Illinois, but we think
9 that there are some that might not want to have their
10 whole home on a real-time pricing rate. And we think
11 that allowing them to make different choices is also
12 important.

13 Again, this is also new as Chris
14 pointed out. We don't yet have a good sense of what
15 the consumer behavior -- how that will really unfold.
16 And so allowing consumers to have the choice of
17 real-time pricing in the existing program is very
18 important. We also think that it's important to
19 offer some newer options, perhaps a time of use rate.
20 The ability to have your car charged on a separate
21 meter or sub-meter or some other kind of way
22 separating your load, we think that that might be

1 important to some consumers.

2 So I think, again, on the principle of
3 not foreclosing options that might be good for
4 consumers now before we really now how the smart grid
5 is evolving we want to make sure that we're look at
6 many opportunities.

7 COMMISSIONER FORD: I was simply going to say,
8 Mr. Goldman, you said you were going to install 36
9 stations. Were they going to be Level 2 or Level 3
10 stations?

11 MR. JONATHAN GOLDMAN: Those will be Level 2
12 stations. And I just wanted to add quickly in
13 looking at the vehicles that are going to be coming
14 out of the market, there's tremendous technology
15 advances in terms of programmability. So if you are
16 charging a car at home using a realtime price rate,
17 you can actually program the car to only charge when
18 the prices at a certain point. And that type of
19 flexibility, you know, we don't need to address tis
20 right away, but down the road there's going to be the
21 ability for that car battery if your battery goes out
22 at home during storm, you can run your home off of a

1 car battery. And ultimately to be able to do vehicle
2 to grid again without programability, you know, that
3 if the peak price for power hit a certain point well
4 you take power off of the battery and back onto the
5 grid which is good for the consumer, but also
6 improves reliability and improves cost for the
7 utility companies as well.

8 MS. BECKY STANFIELD: We would urge to the
9 Commission consider whether you have the authority to
10 actually require smart charging infrastructure that
11 does have the capability of responding to pricing
12 because we think that that is the most likely way
13 we're going to be able to maximize the load shifting
14 functions. And it may not be necessary right away,
15 but you may want to send a signal that says the
16 direction you're heading in for the long term.

17 MR. JOSH MILBERG: Building on the education
18 component, I also think it's important to think about
19 what technologies people are putting into their home.
20 It seem that it's been a bit of a foregone conclusion
21 during the conversation that consumers are going to
22 put Level 2 charging into their home. It's the

1 City's contention, and I think it's probably shared
2 by many people, that Level 1 charging will be more
3 than sufficient for the vast majority of consumers
4 for in-home charging especially when you have a
5 publically available charging structure somewhere
6 that we're putting here in the City of Chicago. Now
7 that doesn't get to the educational component of
8 real-time pricing, but what it does allow you to do
9 is really -- the less you educate the consumer
10 effectively to understand what are the right
11 technologies based on their behaviors and their needs
12 that will get them where they need to charge.

13 COMMISSIONER FORD: But that Level 1 charging
14 is a slow charge. That Level 2 is a \$1500 to \$3000
15 charge at Level 2.

16 COMMISSIONER ELLIOTT: That's what prompted
17 California's Commission was Michael Peevey's wife
18 Level 1 charging her Mini Cooper and it never got
19 charged. She ended up on the street in many
20 different locations and Michael didn't like that. So
21 he instituted a Commission hearing on charging.

22 MS. BECKY STANFIELD: I actually think that

1 people who are going to buy electric vehicles, at
2 least the early adopters are going to want the faster
3 charging.

4 COMMISSIONER ELLIOTT: Yeah, system mobility
5 issues as well.

6 MR. JOSH MILBERG: The fact is that that's only
7 truly slow at this point if you're going from zero to
8 full. But what we found from the research is that
9 around 92 percent of all commutes in the Chicagoland
10 region are 40 miles or less. That does not deplete
11 your battery even on the coldest of days. And also
12 if you're plugging it in during the evening hours
13 when you're at home, it takes 12 to 18 hours to go
14 from zero to full charge. So unless you're planning
15 on only plugging your car in for 3 to 6 hours, then
16 fully charge will get you where you need to go, and
17 it also then saves the consumers between \$500 to
18 \$2000 in upfront costs of putting that infrastructure
19 into their home. So there's some real opportunities
20 and I think part of this as Chris said in his opening
21 comments is that we're going to learn what consumers
22 are looking to do and what they want to do. I know

1 that initially the vehicle manufacturers were all
2 really selling consumers or in some respects forcing
3 consumers to purchase Level 2 chargers for their
4 home. The ones that I spoke to are all moving off of
5 that statement because -- especially in places where
6 you have PE quick charging Level 2 capability
7 publically available, that that no longer is
8 necessary.

9 COMMISSIONER O'CONNELL-DIAZ: As we move
10 forward with the technology that's going to serve
11 these cars, I would imagine that we'll see some of
12 those prices for those charging stations go down
13 based important good old supply and demand. If
14 there's more demand there will be more supply and
15 possibly prices would go down. So that Level 2 may
16 become like the Level 1 that you're talking about.

17 MR. JOSH MILBERG: Certainly and I think
18 there's the opportunity also for more technology that
19 we aren't currently available on and that pushes the
20 curve as well. And I think right now the way that
21 we're looking at it especially in a place where
22 you've got -- develops an opportunity of a publically

1 available infrastructure and you're in the home for
2 those that have in-home capability, then making sure
3 that your choosing the technology that's right for
4 you is going to be extraordinarily important.

5 COMMISSIONER FORD: Jonathan, how far apart are
6 these charging canopies that you're talking about?

7 MR. JONATHAN GOLDMAN: We're going to be doing
8 18 locations primarily in the City, but at least a
9 couple in the suburbs. We'll have two vehicles and
10 two charging stations at each of the locations with
11 the canopies. So in terms of geographic distance,
12 each one may be a mile or two apart, but collectively
13 across the region quite a bit further.

14 And one other thing that I'll just
15 mention is that obviously with this type of equipment
16 in place, we're going to be looking at net metering
17 as an option. But the current metering law does not
18 allow aggregation across multiple locations. And
19 obviously for the type of thing that we're doing,
20 that would be a huge, huge benefit and we're actually
21 looking at the possibility of statutory change in
22 Springfield on that.

1 COMMISSIONER O'CONNELL-DIAZ: And these are
2 solar powered generated stations?

3 MR. JONATHAN GOLDMAN: Right. Each one is
4 going to be about ten kilowatts in capacity, so these
5 will be fairly large canopies roughly 40 feet by
6 20 feet. So in total we will be putting in 180
7 kilowatts of solar in the region which is not
8 substantial.

9 COMMISSIONER O'CONNELL-DIAZ: So that moves
10 away the issue of the clustering problem that would
11 occur. Folks were charging at those stations given
12 the fact that it's self-powered.

13 MR. JONATHAN GOLDMAN: Right. And our charging
14 stations will be dedicated for our work vehicle use.
15 They won't be used by their consumers although they
16 will be largely in public locations because that's
17 where I-GO has its vehicles.

18 ACTING COMMISSIONER COLGAN: I've heard several
19 people talk about the importance of education. I've
20 also heard the first responders to this are probably
21 going to be the group that needs the least amount of
22 education because they're already really

1 self-motivated to get off into it. Who's doing the
2 thinking in terms of the more comprehensive education
3 project that will need to happen out into the larger
4 more general society even for people who are not now
5 our anytime maybe in the near future ready to move to
6 this kind of technology, but nonetheless may in the
7 short term start having to pay for it?

8 MR. CHRIS THOMAS: Well, Commissioner, I hope
9 that's why we're here, frankly. I'm not sure that
10 there's any -- there's no coordinated effort for
11 sure. There are a lot of people thinking about it
12 and one of the things I'd like to see come out of
13 this initiative is a concerted effort in Illinois
14 where we're all working together on messages and
15 trying to tie this communication and this education
16 together in a way that's not been done anywhere else.

17 That's one of the ways that we can
18 help the City meet it's division of making Chicago a
19 home for EVs and to help the Governor make Illinois a
20 home for EVs. I think we need a really clear vision
21 of what the benefits are, how we message those
22 benefits to customers, and how we educate the public

1 about -- and it's not only of this change, but it's
2 just changing energy consumption patterns in general.

3 ACTING COMMISSIONER COLGAN: It seems to me
4 like -- this looks like to me a wedge issue that has
5 multiple dimensions to it. That while we don't need
6 the big comprehensive package to begin with, I heard
7 one speaker say that once you get something built and
8 you get it on the ground then behavior starts
9 happening as a result. So what I hear you saying
10 possibly is that you would like to see the
11 Collaborative process have as a goal some sort of a
12 comprehensive education project that continually
13 unfolds because the society in general needs to know
14 a lot more about electricity and electricity policy
15 as we move to this new future that we're headed
16 towards. Am I hearing you say that this process is
17 opportunity to open that up?

18 MR. CHRIS THOMAS: That's exactly right. I
19 think that my view of this process, and I think a
20 view that we tried to articulate in our comments is
21 that there's short term and a long term focus. The
22 short term is how do we sort of simplify the adoption

1 for the initial adopters. The longer term a how do
2 we use the experience of the initial adopters to
3 transform the way we think about energy in general
4 which I think is exactly the point that you're
5 making. How do we transform the culture of sort of
6 energy usage in Illinois? This is what everybody is
7 talking about and nobody has figured out how to do it
8 and I hope we can use this collaboration to talk
9 through those issues and to begin a more structured
10 and formal process to do that.

11 MR. JOSH MILBERG: There is information that
12 can be leveraged as part of that conversation. The
13 City is receiving pro bono support from Roland Berger
14 Strategy Consultants to help us think through some of
15 the mid and long term challenges with becoming an EV
16 capital and one of those si that a broad-based
17 education as people start to think about this and how
18 they use electric vehicles both for themselves but
19 also through cautionary organizations.

20 And so we are certainly actively
21 thinking about that, but I do think that that can
22 build into this broader collaboration that we're

1 taking about here.

2 MS. MADELEINE WEIL: And I suggest that there
3 are good opportunities for that. I think that the
4 frame of that conversations is sort of better
5 structured as not that the broader public needs to
6 understand more about this because everybody needs to
7 pay for it, but the flip of that which is the broader
8 public should understand about this because everybody
9 is going to benefit from it both in terms of reducing
10 our reliance on foreign oil, national security costs.
11 We're going to be -- the electric grid and renewable
12 energy and energy efficiency and everything that goes
13 into smart grid and stuff that creates jobs here, the
14 Battery Manufacturers Association, we've got a lot of
15 battery manufacturers that are looking in Illinois,
16 that are up the street in Michigan.

17 So I think that -- this shouldn't --
18 definitely we should all in this room be very careful
19 to not frame this as, Oh, this is going to cost our
20 ratepayers and the electric infrastructure is going
21 to be so expensive. But this is a great opportunity
22 for us here in Illinois to advantage the distribution

1 grid and to create some new opportunities for new
2 economic development.

3 ACTING COMMISSIONER COLGAN: I agree with that,
4 but I also know that if the general public doesn't
5 understand all of the these issues and their utility
6 bills keep going up to pay for it, it's going to be
7 an issue of the cost of it. So I think you're right
8 that that's why you have the public education and the
9 outreach effort to get the education out there about
10 how this could benefit society as a whole which is
11 really lacking at this point.

12 MR. CHRIS THOMAS: Commissioner, this is
13 something that this industry -- not just Illinois,
14 but the electric utility industry nationally hasn't
15 been very good at. And I think you've seen this pop
16 up in different ways in different places. I think we
17 need to change the way we think about the questions
18 you're addressing to help people understand that
19 we're trying to change the system for their benefit
20 at the end the day and I don't think we've been very
21 good at that as an industry.

22 COMMISSIONER O'CONNELL-DIAZ: I'm just going to

1 load in here. We've been around and around doing
2 different types of initiatives throughout the time
3 I've been at the Commission. And what it takes and
4 what I'm hearing is honest brokerage and that
5 everyone is going to be in the pool looking for the
6 brick that's at the bottom that we're all going to
7 use. There going to be cost involved in this. Let's
8 not be shy about it. Let's be upfront about it. It
9 should not be utilized for political gains, the
10 issues that are discussed in this type of an
11 initiative. We're trying to change the way that we
12 do energy in this country. And the people that use
13 it that pay for it have to be on that train with us.

14 So for all of us -- and it's very nice
15 to hear the efforts and the people have presented
16 here today and we have a lot of brain power and we're
17 really excited about it, but honest brokerage is
18 going to rule the day. And that means when it comes
19 down to the place where this Commission is going to
20 have to pass on costs and do -- and it's all about
21 the opportunity I totally get that. I understand
22 that, but that's where the rubber ducky meets the

1 road at some point in time.

2 So we're going to have to package that
3 up with a real nice big bow and get out there and --
4 and I'm not saying we sell a stake or anything,
5 because what we're doing is we're selling the future
6 that our country has to move to. So we all have a
7 place to play in it and just having lived through
8 some other endeavors, I hope that we have a different
9 outcome.

10 COMMISSIONER ELLIOTT: If I can add to that, I
11 think that just looking around the table we're
12 talking about trying to describe the elephant.
13 Everybody has had a little piece of elephant and what
14 their idea of their section. But one of the things
15 that I thought was -- that came out of the National
16 Action Plan for Demand Response from FERC and DOE was
17 the collaborative of collaboratives for communication
18 purposes. All of the parties that are effected in
19 this industry got together to collaborate on the
20 communication piece. And it seems to me that this is
21 ideal for that type of collaboration of
22 collaboratives. That everyone has a piece of the

1 message, but not the entire message necessarily. And
2 so it seems that if we can deliver something like
3 that out of this, how that can be an effective tool
4 in trying to get everyone onboard on a consistent
5 message that provides strategies going forward.

6 COMMISSIONER FORD: And I certainly understand
7 what John is saying because John is on our consumer
8 Committee for NARUC. And if we don't have -- and I
9 call it professional development from my old way of
10 learning and best practices out there, we'll be
11 pillaging again if we raise a rate \$1 because these
12 individuals are not going to understand that two
13 people in their neighborhood with a Tesla or whatever
14 kind of car they're going to drive -- and I don't
15 mean to be an impediment, but these are real prices
16 that we're talking about and these are real issues
17 that will come back and we would have to address.
18 And everyone sitting at these tables would have to be
19 on the table with us. We cannot have intervenors in
20 these rate cases saying this should not be and yet
21 you sit at the table and tell us tonight that we need
22 two do these kinds of things. And that's what I see

1 when Erin says honest brokerage and I certainly agree
2 with that.

3 COMMISSIONER ELLIOTT: I think there's an
4 excellent issue I wanted to bring up and that's
5 market structure. If we look at the commercial side
6 of things, 100 KW and above in ComEd is all default
7 hourly. So we know the commercial customer if they
8 don't go with some other provider is going to be
9 paying ComEd the hourly price for energy. That's
10 reasonable what we have and we've all discussed that
11 we have an RTP rate that is available,
12 quasi-available I suppose, and could use a little
13 work in my mind; but needless to say it's a tariff
14 that's on the books.

15 On the other side of the coin is we
16 have a legislative mandate for a fixed price product
17 that is delivered through the Illinois Power Agency.
18 Another aspect is that we have a competitive
19 marketplace with new entrants coming in every day
20 trying to make a determination of where their spot is
21 in this new and developing world of technology.
22 You've heard the utilities talk about being IDCs,

1 Integrated Distribution Companies. They are
2 forbidden from doing certain things and they need to
3 get waivers.

4 So in all of this landscape the issue
5 is we've got a legislative mandate, we already have
6 an RTP rate. What is it that the Commission can do
7 here. Can we put everyone on default RTP because I
8 don't know whose driveway this electric vehicle is
9 going to show up at. That doesn't seem to be a
10 solution that anybody would want to venture out on
11 with very low penetration rates, but what do you do?
12 If you have a mandate to do a fixed rate product, you
13 can't mandate anyone that buys electric vehicle to go
14 on RTP rate. There are going to be customers that
15 are going to go with a flat rate.

16 What are our options given these
17 structures and how much should we do? How much
18 should we leave to the competitive providers to
19 provide a solution, to use the competitive market to
20 provide those environmental benefits for them to
21 provide the solution? I'd like to hear a little bit
22 about, you know, how hamstrung are we given our

1 market structure and what should we be doing and
2 waiting for the competitive market to do or should
3 we?

4 MS. SHARON HILLMAN: Obviously representing a
5 COB, because the competitive market is a very large
6 part of (unintelligible) -- and on the renewable side
7 which I neglected to mention, several of our
8 customers that have charging station customers, they
9 typically will buy 100 percent wind. Because when
10 you look at the difference between the price of
11 electricity and gas, gas is at \$5. There's plenty of
12 room there to pay for renewables.

13 We have a situation in the state right
14 now where we can physically build more room, but we
15 have transition constraints and we have pocketbook
16 constraints. Those are going to start to hit up
17 against the cap. And so I think the vehicles do
18 represent a real opportunity for the competitive
19 market to -- if there's not too much regulation and if
20 there's innovation -- clearly someone who's buying
21 one of these cars is going to have an interest in the
22 environment. Certainly probably the first 5 to

1 10 percent and no one is really saying penetration is
2 going to be much more than about 20 for quite a
3 while.

4 So one of the things that the
5 competitive markets are already doing is there's a
6 huge amount of opportunity or dislocation. There's a
7 one-time transformation when someone buys their first
8 electric car. They pay a little bit more to go on
9 the program at they're home or at their charging
10 station whether it's a solar canopy or a charging
11 station who's buying from a RES because the
12 commercial location potentially being a hundred
13 percent wind. So -- and at this point that's not a
14 very large cost. And even if the price of wind were
15 to go up from a buck a kilowatt per hour all the way
16 back up to \$35 a kilowatt per hour, there's plenty of
17 room between the price of gasoline and the price of
18 electricity to incorporate that.

19 So there's -- some of us really do
20 feel that the competitive market can be a big part of
21 that opportunity and are excited by fact that the
22 residential market is now finally starting to work

1 here over a number of years -- basically the market
2 has evolved both within the utilities and the
3 structure.

4 MR. CHRIS THOMAS: On some level I think,
5 Commissioner, we're still mixing those short term and
6 long term issues. I think that the competitive
7 market is beginning to develop. I think that a lot
8 people have a lot of hope. I don't want to put our
9 faith in the fact that the competitive market might
10 or might not develop. I think we have to think about
11 how to handle this initial transformation and how to
12 handle these initial customers in a way that sets the
13 stage for the competitive market to come in if that's
14 what we're going to do. If that's the direction that
15 we're heading which appears to be the direction by
16 the legislature over that is sometimes a fluid
17 situation.

18 We need to make sure we're getting it
19 right with those first 1000, 5000 customers so
20 they're having a positive experience. Because all it
21 take it is one bad experience that's bad enough to
22 cause a turn in public sentiment and I think we need

1 to be very aware of that as we go through this
2 change. That's why I want to reiterate, again, I
3 think the idea of bifurcating this into both the
4 short term -- call them tariff's, defining issues, if
5 you will, for how he handle those initial customers
6 while still setting up a process to talk about the
7 long term issues.

8 Some of the longer term issue are
9 sticky. There's no question about that, but they
10 don't need to muddy up the short term conversation
11 that we have for those first 1,000 customers or first
12 10,000 customers I couldn't even tell you what it is.
13 It's not very many and the impact and dollar amount
14 aren't as big as -- I think will get lodged in
15 people's mind if we start to talk about making global
16 decisions in a short term process.

17 So if you bifurcate those issues it
18 will make it much easier for the stakeholder
19 community. This is just my experience in going
20 through all the stakeholder processes that I've been
21 through. If we're able to bifurcate the issues of
22 the short term and long term, define goals for the

1 short term, tell us exactly what you want, give us a
2 time frame, give us what you expect us to do in that
3 time frame and then define the longer term issues in
4 a longer bigger process, I think you'll have an
5 effective outcome with minimizing some of that back
6 and forth that's come to pass.

7 MS. ANNE McKIBBEN: I think that's a very good
8 point. And focussing on the short term outcome on
9 that initial customer for the first 3,000 customers,
10 we can fine tune that experience and make that
11 experience as good as possible. That will make a huge
12 difference in our ability to educate the public at
13 large later on. Not just because we'll have some
14 experience with what we should do to educate the
15 public, but because ultimately the public are
16 educated by their coworkers, their friends, and their
17 family. And if we put out good messages in the very,
18 very beginning that gets people -- and people love to
19 talk about their cars. So this is really a good
20 opportunity to get these first few folks happy and
21 engaged and they're going to be the ones who most
22 likely like to be engaged, then I think that will at

1 set us up really well in the long run.

2 MS. MADELEINE WEIL: There's another thing kind
3 of -- potentially a short term issue that might fall
4 into the basket of things that need to be dealt with
5 now and it's something that's outside of the ICC's
6 purview, but it's something that could muddy the
7 experience of the first couple thousand customers and
8 that has to do with local codes, building codes,
9 electrical codes, standards, inspection process,
10 permitting processes, all those things have the
11 potential to take a lot of time and be a real hassle
12 for the first generation of PE owners in the state.

13 I'm not sure exactly what state agency
14 or what body is the right body to address that in a
15 comprehensive way, but I do want to flag it here to
16 say that's another short term issue that somebody has
17 got to deal with.

18 MR. JOSH MILBERG: I can speak to that. As
19 part of our project we interviewed a task force of
20 the local City agencies that are involved and all the
21 permitting necessary to make sure that we can do this
22 efficiently and effectively. We are continually

1 looking at that process and defining that process so
2 that we can replicate it for our other projects so
3 that private projects are being moved forward.

4 I also think once again that that
5 brings up a great point of why we need to look at
6 this portfolio on different technologies. You don't
7 need any sort of code change and doesn't need any
8 sort of permit to plug in a 110 voltage into your
9 garage. I think that it's important for us to be
10 thinking what are the important changes? What are
11 the important processes that we need to make sure or
12 streamline to make this effective.

13 ACTING CHAIRMAN SCOTT: And following up on
14 that that's Chicago, but if you are in Decatur or if
15 you're in Springfield or Rockford, do you have any
16 knowledge of whether that same level of looking at
17 this is going on?

18 MR. JOSH MILBERG: So I can say that this is
19 being looked at by a number of different communities.
20 DCO announced the partnership with Mitsubishi in
21 Illinois. We are also actively involved with -- the
22 Chicago Electric Vehicles Consortium is a regional

1 body. We're looking at working with the other
2 municipalities and other local Governments to see how
3 we can meet the standard so we can be attractive for
4 all of those vehicle manufacturers to bring us cars.
5 We are in the first wave for Ford. We are in the
6 first wave for Mitsubishi. We are working with
7 vehicle manufacturers and this is one of those things
8 that they've asked of local government is to make
9 sure that it's streamlined so that you can have a
10 customer experience.

11 MS. ANNE McKIBBEN: There's also an association
12 of building code officials. So there are a number of
13 other organizations that should be brought in to
14 discuss this early stage effort.

15 MR. JONATHAN GOLDMAN: I think it's natural as
16 we look at sort the unknown moving forward to have
17 concerns about how this is going to play out, what
18 the impacts are going to be, who's going to pay and
19 so forth. But I was a little struck in the opening
20 presentation the reference to when air conditioning
21 was first put in. And I have to suspect that the
22 pervasiveness of the use of air conditioning into

1 housing stock over 30, 40 years probably far more
2 disruptive to the utilities than the addition of
3 these electric vehicle are going to be in the next 5,
4 10, or 20 years. Thinking likewise, the adoption,
5 you know, what's the impact on the grid of millions
6 of plasma TVs that were put in people's home over the
7 last 10 years. Again, I suspect that was far more
8 disruptive.

9 I certainly don't recall any
10 discussions about, Oh my God. Somebody is going to
11 put this monster plasma TV in their home and the
12 personal next door and all the way down the block is
13 going to do it. Do we need to breakout a separate
14 rate structure just for those TVs or just for those
15 air conditioners?

16 COMMISSIONER ELLIOTT: We also have transformer
17 problems from them.

18 JONATHAN GOLDMAN: We have a lot of work to do,
19 but perhaps take this conversations in stride as
20 well.

21 COMMISSIONER ELLIOTT: I just happened to be in
22 a NBA players neighborhood. He had a bunch of plasma

1 TVs all over the house and the neighbors did have a
2 transformer problem.

3 MS. BECKY STANFIELD: The difference between
4 EVs and plasma TVs is that the benefits the EVs can
5 bring to the grid.

6 COMMISSIONER O'CONNELL-DIAZ: Okay. The time
7 is now for us to conclude this meeting. On behalf of
8 the Commission I would like to thank the
9 Commissioners for being part of the discussion. It
10 is so obvious to me and I'm sure it's obvious to
11 everyone in this room that it's going to be really an
12 exciting road for us to travel together.

13 We're going to have to do it together.
14 We have a lot of work to do. We're going to be
15 calling on you a lot because you're kind of like
16 ahead of the curve. So tell your friends we want
17 them to join the party. And we will be planning on
18 the next stages of this initiative in which we will
19 be breaking out into smaller working groups, and
20 obviously based on our discussion here today, I've
21 already got like notes here. I will be looking to
22 you for input based upon our discussions today as to

1 how best to structure the next step.

2 I think that we were initially
3 thinking that we would have answers to things a lot
4 sooner than I think we might. We want to get this
5 going and we want to do it correctly. So we will be
6 sending out notices relative to our next steps. And
7 I would like to thank Chairman Scott for being my
8 co-chair and we're going to work really well. And
9 also all of the other Commissioners will be
10 participating in this at a full tilt because this is
11 our future and we have all have a stake in it.

12 So thank you everyone and thanks for
13 bringing the charging station and we'll now go get in
14 our gas guzzling machines and go home. Thank you.

15 (And those were all the
16 proceedings had.)

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